Serial No.: 09/077,615

accompanying petition for a three month extension of time, the time for response is extended to April 5, 2002, and therefore this response is timely filed.

A check is enclosed for the petition fee. The Commissioner is hereby authorized to charge any deficiency or credit any overpayment in any fee required for this filing to Deposit Account No. 06-1447. For the purpose of charging or crediting said deposit account, duplicates of pages 1, 2 and the signature page are submitted herewith.

AMENDMENTS

In the Specification:

Please replace the paragraph starting on page 12, line 26, and ending on page 12, line 31, with the following:

The complementary strand of the reference DNA molecule may be provided by essentially the same technique as the technique set out above in steps (i) to (iv) for providing the mixture of DNA molecules in single-stranded form. In particular, the reference complementary strand DNA molecule may be provided by

This approach is suitable for automated separation and detection. In order to automate the analysis, it is proposed to include mobility markers in the separation phase. These labeled markers would be either defined segments of genomic DNA prepared by amplification or synthetically prepared so as to act as reference points for automatic computation of the exact position of the sample under investigation.

Please replace the paragraphs starting on page 35, line 8, and ending on page 35, line 24, with the following:

5' A locus primer: GAA ACG/C GCC TCT GT/CG GGG AGA AGC AA (Intron 1: 21-46) (SEQ ID NO:1)

3' A locus primer: TGT TGG TCC CAA TTG TCT CCC CTC (Intron 3: 66-89) (SEQ ID NO:2)

5' B locus primer: GGG AGG AGC GAG GGG ACC G/CCA G

,

62

Serial No.: 09/077,615

(Intron 1: 36-57) (SEQ ID NO:3)

E3

- 3' B locus primer: GGA GGC CAT CCC CGG CGA CCT AT (Intron 3: 37-59) (SEQ ID NO:4)
- 5' C locus primer: AGC GAG GG/TG CCC GCC CGG CGA (Intron 1: 42- 61) (SEQ ID NO:5)
- 3' C locus primer: GGA GAT GGG GAA GGC TCC CCA CT (Intron 3: 12-35) (SEQ ID NO:6)

Please replace the paragraph starting at page 41, line 1, with the following: RV = relative value, is the measure of the migration of the bands. It is arrived at by using the positions of the front running primer band and the reference homoduplex (values 1 and 1000 respectively) in each track, to compute a standard curve. The values of the migration of the subsequent bands are calculated from this curve. RV is followed by SD for each set of tests.

In the Claims:

Please cancel claims 70-72.

Please amend the claims to read as follows:

- 55. (Amended) A method for identifying a DNA molecule comprising:
- (a) hybridizing a single strand DNA molecule with a complementary reference DNA strand to form a test duplex;
- (b) separating the test duplex from at least one control duplex run in the same separation;
- (c) detecting the positions to which the test duplex and the at least one control duplex migrate in the separation;
- (d) assigning an exact numerical migration value to the position to which the test duplex migrates; and